

MULTIFAMILY

#### November 14, 2016

Fannie Mac 3900 Wisconsin Avenue, NW Washington, DC 20016-2892 Attn: Daniel Swartz, Credit Risk Manager

2013 Travis Oak Creek, LP c/o Eureka Multifamily Group 3001 Knox Street, Suite 400 Dallas, TX 75205 Attention: Rene Campos

Re: Request for extension of Final Delivery Date
Lucero Apartments (f/k/a Oak Creek Village) Austin, Texas
Fannie Mae Forward Commitment No.: 874426
PNC Loan No: 310401235

# Ladies and Gentlemen:

Reference is hereby made to the \$27,300,000 Fannie Mae Forward Commitment for Fixed Rate Mortgage Loan dated May 21, 2014, as amended by a letter agreement initially dated March 28, 2016 and subsequently revised on April 6, 2016 (as amended, the "Commitment"), from PNC Bank, National Association ("PNC"), to 2013 Travis Oak Creek, LP, a Texas limited partnership ("Borrower"). Initially capitalized terms not otherwise defined herein shall have the respective meanings given in the Commitment.

The Final Delivery Date under the Commitment is currently November 23, 2016. The purpose of this letter is to extend the Final Delivery Date to May 23, 2017 (the "Extended Final Delivery Date"), subject to satisfaction of each and all of the terms and conditions set forth below:

(a) A fully countersigned copy of this letter must be delivered to PNC at the following address by no later than November 15, 2016:

> PNC Bank, National Association 10731 Treena Street, Suite 201 San Diego, CA 92131 Email: nancy.mceachern@pnc.com

Member of The PNC Financial Services Group (1673) Treena Street, Sone 201, San Origo, CA 92131 www.pnc.com Exension Letter Issued Date: 2005 Revised Date: 6/2015



2013 Travis Oak Creek, LP November 14, 2016 Page 2

- (b) Extension fees shall be paid and received in the uggregate amount of \$307,125.00, comprised of the following amounts:
  - 1. Fannie Mae Standby Fee (.125%): \$34,125.00
  - 2. Fannie Mae Extension Fee (.250%): \$68,250
  - 3. MBS Investor Extension Fee for first month only of the six-month extension (.750%): \$204,750

The two Fannie Mae fees referenced above are due by no later than November 18, 2016. Please wire them to:

PNC BANK, NA

ABA #: 043000096 Account #: 1019804919

Account Name: PNC Bank, National Association
Reference: Forward Commitment Extension Fee
310401235 Oak Creek Village

The MBS Investor Extension Fcc reference above is due by no later than November 15, 2016, by 3pm Eastern time, as set forth in their invoice sent separately on November 2, 2016 (a copy is attached; please refer to wire instructions set forth therein).

The MBS Investor Extension Fee for each of the remaining five months of the six-month extension will be invoiced on a monthly basis until the Conversion of the Commitment is satisfactorily completed. The amounts and dates due for each of the 2<sup>nd</sup>, 3<sup>nd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> months of the six-month extension period are as follows:

Month	Fee (%)	Fee (\$)	Notice Due	Extension Fee	Extension
		<u> </u>	Date (1)	Due Date (2)	Through Date (3)
Jan 2017	0.875%	\$ 238,875	11/25/201 6	12/15/2016	1/23/2017
Feb 2017	1.125%	\$ 307,125	12/26/201 6	1/13/2017	2/23/2017
Mar 2017	1.375%	\$ 375,375	1/26/2017	2/15/2017	3/23/2017
Apr 2017	1.625%	\$ 443,625	2/23/2017	3/15/2017	4/21/2017
May 2017	1.625%	\$ 443,625	3/24/2016	4/14/2017	5/23/2017

#### Notes:

<sup>(1)</sup> if MBS Investor is not notified of Conversion approval by this date, the next month extension fee will be due.

<sup>(2)</sup> Wire is due by 3pm Eastern time on the extension fee due date

<sup>(3)</sup> Payment of the extension fee pushes the Final Delivery Date to the stated date.

2013 Travis Oak Creek, LP November 14, 2016 Page 3

(c) PNC shall have received evidence by November 15, 2016, that the maturity date of the construction loan from JPMorgan Chase Bank, N.A. has been extended to May 23, 2017.

PNC, Fannie Mae and the Borrower each hereby acknowledge and agree that all terms and conditions of the Commitment that are not expressly modified by this letter remain in full force and effect in accordance with their respective terms.

Borrower hereby certifies that there has been no material adverse change to the structure or financial condition of the Key Principal, Guarantor, Borrower and/or General Partner since the Commitment was originally issued, nor are any material adverse change pending or otherwise expected as of the date of this letter.

Please countersign this letter where indicated below and return it to PNC to evidence your acceptance of the terms for extension of the Final Delivery Date. Acceptances of this letter may be executed in counterparts.

Yours truly.

Kelli/A. Tyler, Vice President

Date of Execution: November 14, 2016

2013 Travis Oak Creek, LP November 14, 2016 Page 4

Acknowledged and agreed by:

BORROWER:

2013 TRAVIS OAK CREEK, LP, a Texas limited partnership

By:

2013 Travis Oak Creek GP, LLC, a Texas limited liability company,

its general partner

By:

Rene O. Campos,

Manager

Date of Execution:

November /5, 2016

FANNEMAE

Name: Will

Asst. Vice President

Date of Execution:

November \_\_\_\_, 2016



November 2, 2016

Invoice: Oak Creek Village - 2324 Wilson St. Austin, TX 78704

Extension Fec(s) Total: \$ 204,750

Extension Fee	Total Amount Due	Extension Through Date
0.75%	\$204,750.00	12/23/2016

Please wire the total amount due to the below instructions no later than November 15, 2016:

#### Please wire this amount to:

Beneficiary Name: PNC Bank

ABA 043000096 A/C 1188375

A/C Name: PNC Capital Markets, LLC

Authorized Signature
Michael Douglass

Director

Wire Call Back Confirmation:

Dan Antonucci

Office: 412-237-0746

## Case 1:17-cv-00584-RP Document 72-6 Filed 07/25/17 Page 6 of 43

From: Mark Rogers <a href="mailto:mrogers972@gmail.com">mrogers972@gmail.com</a> Friday, October 07, 2016 1:12 PM

Sent: Friday, October 07, 2016 1:12 PM

To: Howard, Susan; Richards, Karen L; McEachern, Nancy

Cc: Kirk Standly

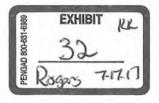
Subject: Lucero - extensions

Susan, Karen, Nancy, as we discussed on the Tuesday conference call, because of the concerns with the stucco condition on the property (which is being evaluated at this time) we will not have updated information in time for a closing of the Fannie Mae Loan nor the Bridge Loan payoff per the original schedule. Therefore, 2013 Travis Oak Creek, LP, seeks an extension of the Fannie Mae Commitment and the PNC Bridge Loan. While we don't know the ultimate term for the extension (which will be impacted on the stucco condition and repairs), Fannie Mae prefers to work in six month increments so we request six month extensions for both the Fannie Commitment and the PNC Bridge Loan.

Let me know if you have any questions or if we need to discuss.

Thanks

Mark



### Case 1:17-cv-00584-RP Document 72-6 Filed 07/25/17 Page 7 of 43

From: Mark Rogers <mrogers972@gmail.com>
Sent: Wednesday, September 07, 2016 3:22 PM

To: Howard, Susan

Cc: Marcum, Benita R; karen.richards@pnc.com; nancy.mceachern@pnc.com;

cia.thongrivong@pnc.com; Kirk Standly

Subject: Oak Creek Village

Susan,

Attached is a building envelope study for Oak Creek Village aka Lucero that describes certain deficiencies primarily of the stucco prepared by WJE. We are treating these as warranty claims but Weis has responded that they disagree with the nature of all the deficiencies cited in the report, though they do acknowledge certain deficiencies and are willing to make repairs. We met last week to discuss these findings and Weis' response and have determined we will need additional time to review the Weis response with our design team to determine the nature of the deficiencies and likely steps to remedy. Additionally, we expect their recommendation for some additional testing. Also attached is a high level range of repair estimates.

Unfortunately, with Weis's prolonged delay in completing punch and warranty work and now the existence of these stucco deficiencies, the GP is unable to sign the Representations and Warranties that would be required to close into the Fannie Permanent loan until more information is available and a repair plan is determined and acceptable to all parties. We expect a proposal by the end of this week for additional testing and additional efforts by WJE to help determine responsibility for the deficiencies and a recommendation on repairs.

In the meantime, we believe it is prudent to move forward to closing of the second and third equity tranche, extend the construction loan with Chase and seek an extension with Fannie for the permanent debt.

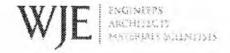
Let me know if you have any questions or if we need to discuss.

Thanks

Mark



## Case 1:17-cv-00584-RP Document 72-6 Filed 07/25/17 Page 8 of 43



Wiss, Janney, Elstner Associates, Inc. 9511 N. Lake Creek Parkway Austin, Texas 78717 512.257.4800 tel | 512.219.9883 fax Texas Registered Engineering Firm F-0093 www.wje.com

Via Email: mrogers972@gmail.com

November 17, 2016

Mr. Mark Rogers
Vice President
2013 Travis Oak Creek Developer Inc.
3001 Knox Street, Suite 400
Dallas, TX 72505

Re: Revised Report for Enclosure Assessment of the Oak Creek Village Apartments WJE No. 2016.3106.1

Dear Mr. Rogers:

At your request, Wiss, Janney, Elstner Associates, Inc. (WJE) has performed additional assessment of the stucco installation at the Oak Creek Village Apartments buildings, located at 2324 Wilson Street in Austin, Texas. The additional assessment included review of additional information not available to us prior to issuance of our July 22, 2016 report. This letter amends and supplements our previously provided findings and presents recommendations.

# Background

WJE initially performed a limited assessment of the enclosure at the subject property in June-July 2016, as summarized in our report dated July 22, 2016. This included a visual survey, a limited document review of the architectural drawings and specifications and Change Order Number 1; it did not include testing or deconstructive openings. Capital Project Management had requested that we evaluate the stucco installation. Based on our previous findings, WJE recommended additional evaluation of the stucco installation and other selected enclosure components to assess compliance with the construction documents and industry standards, particularly regarding long-term durability and water intrusion.

Subsequently, WJE received access to additional project correspondence and, on September 22, 2016, construction documents via Newforma, the online project collaboration service used for the project. We performed additional document review and additional visual observations of the stucco control joint layout, as well as limited observations of the interiors of selected units.

The project consists of four interconnected buildings (A, B, C, and D) with 173 units over five levels and 244,838 sf with a level of parking below. The original Architect of Record was Craycroft McElroy Hendryx (CMH) with Bercy Chen Studio, LP (BCS) as the Design Architect, primarily focused on issues of acsthetics. We understand that CMH left the project in January of 2015. Weis Builders, Inc. (Weis) served as the Contractor and John R. Keller Masonry, Inc. (Keller) provided the stucco installation.

We understand from the submittals and correspondence that the project's exterior walls consist of a Parex proprietary one-coat stucco cladding system, including an acrylic finish on 1/2-inch stucco with self-furred,

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## Case 1:17-cv-00584-RP Document 72-6 Filed 07/25/17 Page 9 of 43



Mr. Mark Rogers 2013 Travis Oak Creek Developer Inc. November 17, 2016 Page 2

paper-backed metal lath over 1-inch expanded polystyrene (EPS) and 3/16-inch MTI drain mat, with Tyvek Commercial Wrap over gypsum sheathing on wood stud backup, with insulated cavities and interior gypsum board as well as flanged aluminum windows.

## **Contract Document Review**

In addition to documents provided prior to our initial review (described in our July 22 report), WJE was subsequently provided with limited correspondence and full access to the project's Newforma site, including the Construction Set architectural drawings by CMH as well as the MEP and structural drawings, dated May 23, 2014; the Construction Set specifications by CMH, dated May 21, 2014; 39 ASIs; 79 PCOs; 235 submittals; 192 RFIs; and 5 field reports from both CMH and BCS. WJE performed a review of applicable portions of these documents. Additionally, we were provided with a response, dated August 18, 2016, from Weis to our initial report. On November 15, 2016, we were also provided with photos from Weis of the Tyvek and stucco installation around the windows during construction.

#### Locations of Control Joints

In the construction drawings, the locations of vertical and horizontal control joints are indicated on the elevation drawings, Sheets A5.01 through A5.03. A note on Detail 6/A8.01 also calls for horizontal control joints to be aligned at each floor level with the breezeways and balconies.

Per emails we received from BCS among BCS, Weis, and Keller, we understand that a revised typical control joint layout was proposed by BCS, with another revision made once Keller pointed out that the length-to-width ratios of some stucco panels bounded by the control joints were in excess of ASTM C1063 requirements (Figure 1). The revised layout appears to generally comply with the standard's maximum distance, area, and length-to-width ratio requirements, with a few exceptions at some of the shorter panels.

Per the Weis response, Keller suggested horizontal control joints at the floor lines; however, these were not included in the final layout.

Additionally, submittal number 072418-0001-01 is an addendum to the submittal, marked "For Record Only", that states the lath would not be cut behind the control joints as per ASTM C1063, which is the standard required by ESR-2564.

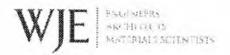
#### Locations of Weep Screeds

In Specification Section 072418, Part 3.5.A.1, weep screeds are called for at base terminations and window and door heads.

Per Weis's response to our report, weep screeds above windows and doors are not required by the applicable ICC ESR-2564 nor ASTM C1063 and because the substitute system is not EIFS, the Specification Section 072418 does not reflect the approved and installed cladding system. No request for a specification relevant to the stucco system after the substitution of stucco for EIFS appears to have been requested or provided.

From a diagram issued via email by Weis (Figure 2) proposing a value engineering (VE) change from EIFS to stucco, we can see that the drainage of the wall system was to be provided at base terminations by a gap between the weep screed, located inboard of the drainage mat, and the metal casing bead terminating the EPS and stucco assembly.

### Case 1:17-cv-00584-RP Document 72-6 Filed 07/25/17 Page 10 of 43



Mr. Mark Rogers 2013 Travis Oak Creek Developer Inc. November 17, 2016 Page 3

In Weis's letter, they state that the weep screeds were installed per the relevant ICC ESR-2564; however, per Figure 2 in that document, the foundation weep screed is shown receiving the stucco, with no additional metal casing bead installed.

ASTM C1063 requires that the flanges or clips used to attach accessories be embedded in the stucco.

#### Window Sill

Detail 1/A7.02 shows the flanged window sill terminating over the top of the EIFS. Presumably this detail would remain the same for the Parex stucco system substitution.

Weis responded that our description of the flanged window sill per the design detail is incorrect; however, the sill assembly as designed does indeed have a flange that goes down (the detail actually shows this flange stripped in, with which we disagree) as well as a profile that extends outward beyond the flange to capture the top of the EIFS assembly originally included in the design.

Per submittal number 085200-0006-02, windows from MI Windows and Doors were substituted, and the shop drawings therein show a flange with a sill extension that could cover the cladding system. The fire rated windows submitted with 085200-0003-01 show just a small extension from the flange that would not be able to cover the cladding system.

While we did not find relevant documentation via Newforma for treatment of the stucco at the window sill, we understand from Weis's letter that Thoroseal and Acryl 60 were used to mitigate water migration through the sloped stucco itself at the sills.

#### Locations of Expansion Joints

Upon further review, we located indications for expansion joints between buildings A and B, C and D, and A and C in the architectural plans on Sheets A4.02 through A4.05, each referencing Detail 10/A6.02. We would have expected to see another expansion joint between the two segments, perpendicular to one another, that make up Building C.

Detail 10/A6.02 shows an expansion joint cover that would be visible from above.

The structural drawings do not directly point to expansion joints. However, the relevant framing plans do indicate two 2x10s on either side the expansion joints indicated in the architectural drawings.

Weis's response appears to reference expansion joints in the stucco system. To be clear, we are discussing expansion joints between the different buildings.

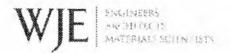
#### Finish-coat Texture

In the EIFS Specification Section, 072418, Part 3.8.A, the finish is indicated to match the Architect's samples and be free of texture variations. Again, no request for a specification relevant to the stucco system after the substitution of stucco for EIFS appears to have been requested or provided.

### Visual Survey

As part of our initial assessment, WJE conducted a visual survey of the exterior walls, focusing on the installed stucco system (Figure 3). Upon subsequent receipt of additional documentation, we reevaluated

### Case 1:17-cv-00584-RP Document 72-6 Filed 07/25/17 Page 11 of 43



Mr. Mark Rogers 2013 Travis Oak Creek Developer Inc. November 17, 2016 Page 4

the installed control joints with regard to the revised layout and conducted a survey of the interior of units selected based on availability. With a few exceptions, the control joint layout installed was consistent with the revised layout provided by BSC via email on January 28, 2015. Additionally, no incidents of leakage have been reported to WJE, and there were no signs of water intrusion in any of the units we surveyed from the interior, which included units 1610, 3409, 4401, 4405, and 4409. As before, the stucco installation was generally in good condition; however, we noted a few systemic issues along with some isolated issues. We also noted some issues worth mentioning beyond the stucco installation.

WJE observed the following systemic issues with the stucco installation; these issues were characteristic of all observed buildings on the subject property:

- Control joints not provided at floor lines and associated cracks in these locations (Figure 4 and Figure 5).
- Weep screeds not provided at base terminations of stucco at window and door heads (Figure 6 and Figure 7).
- Secondary trim installed at base terminations of stucco over foundation screeds (Figure 8).
- Casing bead flange at base of wall not embedded in stucco (Figure 9).
- No metal window sill framing to cover top of stucco assembly and separation between stucco and window frame at sills (Figure 10 and Figure 11).
- Perceptible texture variations at apparent stucco repairs (Figure 12 through Figure 17).
- Deflection joints at tops of columns stopped shy of reglet termination accessory (Figure 18). Cracking
  of the stucco was noted along these columns.

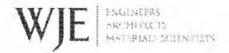
WJE observed the following isolated issues related to the stucco installation. These issues were observed only in a limited number of locations:

- Separations between stucco and accessories at termination screeds, corner beads, foundation weep screeds, and balcony edges (Figure 19 through Figure 21).
- Uneven termination of stucco at edges and bases of walls (Figure 22 and Figure 23).
- Cracking in the field of stucco and along the wood column between Buildings C and D (Figure 24 through Figure 28).
- Lack of weather barrier tie-in above mailboxes at Building C and at multiple locations of low roof interfaces with stucco cladding (Figure 29 through Figure 31).
- Unsealed penetrations through face of stucco cladding (Figure 32 and Figure 33).
- Mechanical damage to stucco (Figure 34).
- Abandoned electrical junction boxes with unsealed covers (Figure 35).
- Railing corrosion and environmental staining at balcony and walkway edges (Figure 36 and Figure 37).
- Staining of stucco cladding below balconies (Figure 38).
- Stucco coating missing at relocated downspout at Building C and behind utility panels at Building A (Figure 39).

In addition to the stucco items noted above, WJE observed several issues unrelated to the stucco installation that may affect the long-term performance of the building systems. These include, but are not limited to, the following:

- Corrosion and limited spalling in concrete at embedded handrails (Figure 40 and Figure 41).
- Separation and moisture staining at soffit board joints (Figure 42 through Figure 44).
- Building expansion joints not installed as indicated by drawings and associated cracking (Figure 45).
- Efflorescence at edge of split slab at podium level (Figure 46).

### Case 1:17-cv-00584-RP Document 72-6 Filed 07/25/17 Page 12 of 43



Mr. Mark Rogers 2013 Travis Oak Creek Developer Inc. November 17, 2016 Page 5

- Damage to below-grade waterproofing (Figure 47).
- Spray foam sealing conduits at roof hood exposed to UV (Figure 48).
- Leaking downspout connections (Figure 49).
- Ponding water at roof section over Building C (Figure 50).
- Roof access door threshold lower than industry standard (Figure 51).

### Discussion and Recommendations

#### Stucco Installation, General

In general, the stucco cladding at the subject project appeared to be consistent with typical stucco cladding observed in this region and performing adequately. The surfaces were generally in good condition, with limited cracking and damage noted in the areas described above. However, the installation exhibits some deficiencies. A discussion of these items and WJE's recommendations for addressing them is provided below. In a number of our recommendations below, we have offered a robust solution for remediation as well as a less comprehensive solution for consideration by the owner.

#### Control Joints

Although WJE, along with the initial design for control joint layout and Keller's suggestion, propones that control joints be installed at the floor lines, the revised control joint layout produced does appear to generally comply with ASTM C1063 requirements. While the vast majority of control joints installed appear to be located in compliance with the intent of the revised control joint layout, WJE observed that a limited number of control joints were not located as depicted on the revised control joint layout, with several added but some eliminated or relocated (reference Figure 1).

We noted a handful of cracks stemming from the bottom corners of both inset and protruding balconies. Although there are vertical control joints at the inset balcony corners, the function of the joints may have been compromised by Keller extending the lath through the joints, as stated in their submittal amendment and counter to the requirements of ASTM C1063, or fastening both sides of the joints. At the protruding balconies, the revised control joint layout did call for horizontal control joints at the top of the balcony; however, these control joints were instead installed at the bottom of the windows above.

We anticipate some increase in these types of crack over time with additional thermal cycling and building movement. These cracks can allow a larger volume of water than intended to enter through the cladding system, challenging weather barrier vulnerabilities. To mitigate future cracking of this type at locations where the control joints are missing or deficient, stucco could be removed to the nearest adjacent panels in these locations to allow for proper installation of control joints with cut lath per ASTM C1063. Alternatively, cracks could be scaled as part of ongoing maintenance.

#### Weep Screeds

Per Weis's response letter, the VE substitution of the Parex stucco system for the specified EIFS system they proposed precludes the applicability of the Specification Section 072418, including its requirement for weep screeds at door and window heads, and, by extension, the applicable details from the construction documents. We are unaware of any request for a new specification or detailing to reflect the substituted system. Beyond the diagram Weis issued for the base of wall condition, we would then expect to rely on the Parex system's ICC ESR-2564 for code compliance. In that report, the requirement to install lath per

## Case 1:17-cv-00584-RP Document 72-6 Filed 07/25/17 Page 13 of 43



Mr. Mark Rogers 2013 Travis Oak Creek Developer Inc. November 17, 2016 Page 6

ASTM C1063 is stated and includes the requirement that stucco accessory flanges are completely embedded in the plaster.

Foundation weep screeds were present at the bases of walls; however, a second piece of trim appears to provide the termination for the stucco, rather than the weep screed. No distress associated with a lack of drainage at the base of the stucco was noted, and the wall does appear capable of draining out from the MTI mat. However, the secondary casing bead used to terminate the stucco does not have its flange engaged with the plaster, per ASTM C1063 requirements. This may contribute to separation of the stucco from the casing bead over time, which, beyond the aesthetic implication, can result in premature deterioration of the stucco termination as well as the accessory over time, as water sheets down the face of the stucco and collects and stands in the non-perforated casing bead. We recommend removing a strip of stucco along these conditions to reinstall the casing beads per ASTM C1063, protect the foam from exposure, and allow the wall system to drain. At a minimum, we recommend monitoring the stucco for separations from the accessories over time and repairing the separations as they manifest.

Based on the photos from during construction provided by Weis, the casing beads used at the window and door head and jamb appear to have been installed like the casing bead we observed at the base of wall, with the flange not engaged in the stucco. As a result, separation between the stucco and the accessory can occur with thermal cycling. At the head condition in particular, this can contribute to more water entering the wall system behind the stucco than intended, which is more of a concern at the windows and doors than at the base of wall. We propose a similar repair approach as at the base of wall, removing a strip of stucco around the window and door heads and jambs, reinstalling the casing beads per ASTM C1063, maintaining protection of the foam from UV, and, while leaving the head condition open to drain below the casing bead, reapplying a fillet bead of sealant, with bond breaker tape, between the casing bead and the face of the window framing at the jambs.

As for weeping the system above the window and door heads, we observed minimal cracks and separations at the heads of windows and doors, and with the head flashing observed as well as the gap between the head flashing and the stucco casing bead above, the wall appears capable of draining at the head locations.

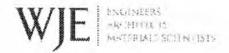
#### Window Sills

We observed the stucco system returning at an angle to meet the bottom of the windows, and we observed some cracking along the joint between the stucco and window system. As no sealant joint exists to accommodate differential movement of the window frames and stucco system, we would expect additional separation along this joint to develop over time. This separation can allow water to enter behind the cladding system. Although flashings and weather barriers are provided behind stucco, these are intended to manage incidental water only, and measures should be taken to seal openings and gaps that could allow larger volumes of water to penetrate the stucco. Blistering of coatings, efflorescence, lath corrosion, and leakage can all result from excessive water penetration behind stucco. We recommend that stucco below window frames be routed to provide a minimum 3/8-inch joint opening, and that a scalant joint be installed between the stucco and window frame, intersecting existing scalant joints at the jambs.

#### **Texture Variations**

We were able to discern some resulting variation in texture of the stucco finish where repairs have apparently been made. On the east façade, we also noted a couple of panels that had a different pattern of texture relative to adjacent panels, perhaps due to repairs. We are currently unaware of the type of finish

### Case 1:17-cv-00584-RP Document 72-6 Filed 07/25/17 Page 14 of 43



Mr. Mark Rogers 2013 Travis Oak Creek Developer Inc. November 17, 2016 Page 7

required by the Architect's samples; however, we observed a somewhat rough, textured finish on the installed stucco. The variations in texture are, in general, as expected for a textured stucco finish coat.

Given the nature of the rough, textured stucco finish, we would expect some difficulty in matching any patching to the existing stucco completely. In our opinion, some slight disparity is to be expected with this type of stucco finish, and the performance will not be affected by these discrepancies in texture.

### Deflection Joints

At the columns supporting the breezeways, we observed that the reveal providing for deflection at the top of the column stopped shy of the reglet, making the stucco continuous across the joint at those locations. We also observed corresponding cracking in these locations. Typically, stucco accessories would be provided in these and similar joints to accommodate differential movement of substrates and inhibit cracking between stucco panels.

Continued cracking can be expected at the interface of columns with the breezeways where the stucco is continuous, without a corner bead or other means of separation between stucco panels. To provide separation and accommodate movement, stucco can be cut out to allow for installation of corner casing beads separated by sealant and backer rod. Alternatively, stucco can be routed out along these vertical joints for installation of sealant and backer rod.

#### Isolated Stucco Issues

In addition to the more systemic issues described above, we also observed a number of isolated issues.

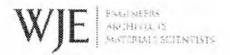
We noted some separation at stucco accessories as well as some uneven terminations at stucco bases, particularly facing Wilson Street and the interior courtyard. The separations can be repaired with sealant and sanded and painted to match the existing stucco. At the uneven terminations, the stucco panel at the base of wall can be removed and replaced.

We observed some isolated cracking in the field of the stucco as well. As described above, this cracking is limited, likely related to the failure to cut the lath behind control joints and/or placement of control joints in locations inconsistent with those recommended in ASTM C1063, Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster. This standard contains recommendations for locating control joints, including provision of horizontal and vertical joints at each window and door corner as well as limiting the length-to-width ratio of each stucco panel to 2.5:1. These standards generally appeared to be followed on the revised layout and as constructed, with the exception of some isolated locations noted above. These isolated cracks observed can be repaired with sealant and sanded and painted to match the existing stucco.

A purportedly wood column between Buildings C and D exhibited cracking almost its full height. WJE recommends complete removal of the stucco, installation of membrane flashing over the extents of the wood, and covering the column with formed sheet metal panels or similar to match the surrounding stair. We do not recommend reinstalling stucco in this location, given the geometry of the column and potential for future cracking with moisture content-related volume changes in the wood.

Some locations revealed a lack of weather barrier tie-in or edge termination between the stucco and interfacing system. These locations included the mailboxes at Building C, as well as two low roof-to-stucco

## Case 1:17-cv-00584-RP Document 72-6 Filed 07/25/17 Page 15 of 43



Mr. Mark Rogers 2013 Travis Oak Creek Developer Inc. November 17, 2016 Page 8

interfaces at Building A. At the mailboxes, both the stucco and mailboxes should be removed to allow for installation of membrane flashing into the perimeter of the rough opening to ensure continuity of the air and moisture barrier system. Sheet metal closures may be required at the perimeter of the stucco opening around the mailboxes.

We also observed a number of penetrations through the stucco that did not appear to be sealed and one location where the sealant had separated. In locations of apparent lack of continuity between the weather barrier and adjacent opening or roof system, water can leak into the building interior, leading to damage of wall components and finish materials. At locations of unsealed penetrations, it was unclear if the penetration was added subsequent to installation of the stucco; penetrations added after stucco installation may not be adequately integrated into the weather barrier system, which can also lead to water infiltration. We recommend adding sealant to the untreated penetrations and repairing any separated scalant.

In a limited number of locations, we observed mechanical damage to the stucco. These areas should be repaired and recoated.

While not necessarily problematic, we did observe a few instances of what appeared to be abandoned electrical junction boxes with unsealed covers penetrating the stucco. A lack of continuous cladding material at damaged stucco and abandoned unsealed junction boxes can allow water to enter into the wall system, potentially leading to leakage at the building interior. It is unclear whether the abandoned outlets are contributing to any water intrusion behind the stucco; however, we recommend considering installing permanent exterior covers that can then be sealed to the stucco. In addition, we recommend continued monitoring of the area interior of unsealed penetrations to determine whether water infiltration is occurring as a result of these installations.

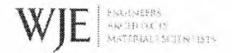
WJE observed widespread staining of the breezeway and balcony fascia conditions as well as signs of corrosion at several instances of the railing where we presume some portions of the railing were not fully coated. Beyond the resulting staining, this also appears to be contributing to some spalling in the balcony concrete where the railing posts are encapsulated. Further corrosion of handrails will lead to additional spalling of the surrounding concrete, due to the expansive nature of the corrosion product. In at least two locations on Building A, we also observed staining below balconies at either end, which appears to be resulting from the railing corrosion. Staining on the surface of stucco below balconies and walkways can be removed with a mild cleaner such as tri-sodium phosphate and a stiff bristle brush. However, strong cleaners and acids, such as muriatic/hydrochloric acid, should be avoided to prevent damage to the stucco. Regular cleaning of the balcony surfaces may limit the recurrence of this staining; however, stucco surfaces will likely require continued cleaning. Resolving the railing corrosion issue (discussed below) will likely minimize the cause of some of this staining.

Where one downspout was relocated at the base of Building A, the stucco surface was not coated, and abandoned fastener penetrations were present. The penetrations should be repaired, and the stucco and utilities should be painted to match adjacent panel colors.

#### Railing Corrosion and Spalling

We recommend cleaning the railings where corrosion is already occurring and applying a protective coating to mitigate any further corrosion. Depending on the extents of corrosion, the railing may need to be removed to allow for continuous application of the coating over embedded rail post surfaces. Without isolation joints

## Case 1:17-cv-00584-RP Document 72-6 Filed 07/25/17 Page 16 of 43



Mr. Mark Rogers 2013 Travis Oak Creek Developer Inc. November 17, 2016 Page 9

around the posts, cracking and spalling may occur due to shrinkage and thermal movement of the topping. We recommend providing full-depth compressible joint filler material with surface sealant joint around railing posts and a 3/8" sealant joint around railing penetrations through stucco. Subsequent to these repairs, corrosion staining can be removed from the faces of the stucco.

## Non-Stucco-Related Exterior Enclosure Issues

#### Soffit Panel Joints

We understand from Weis's response letter that they were told to proceed with mudding the soffit joints, despite warning that the sort of separation observed would occur. In at least two instances, we also observed water damage at these joints. Possible sources of the moisture could include condensation within the soffit, leakage from exterior walkways above, or plumbing leakage. Additional investigation, including openings in the soffits at these stained locations, would be required to determine the cause and develop repair recommendations. This additional investigation is beyond the scope of our assessment.

As the observed distress is already occurring at many of the joints, it will likely spread to most, if not all, of the panel joints. We recommend refinishing the joints and allowing them to ventilate the plenum space above. Where water damage has occurred, we recommend removing and replacing the affected panels.

#### Lack of Building Expansion Joints

Despite the indications on the architectural and structural drawings, we did not observe any expansion joints in the as-constructed conditions between buildings or within cladding materials. We did observe an increase in the frequency of separations at the soffit panel joints near breezeway connections between buildings. The differential movement of separate buildings may explain distress at soffit panels as well as the stucco at nearby column heads, promoting separation.

Currently, evidence of differential movement between buildings was observed at the podium concrete, in cracks at the stucco, and at separations of soffit panel joints near the adjoining breezeways; however, continued damage may occur over time if this condition is not addressed. We recommend providing the expansion joints in the exterior finishes at locations indicated in the construction drawings as well as an additional set between the two segments of Building C.

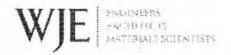
### Split-slab Efflorescence

We observed a significant amount of efflorescence stemming from the split-slab waterproofing system at the podium, along with some staining from the railing above. This efflorescence appears to be a result of water migrating through the finished surface over the podium, where it contacts the waterproofing surface and drains to the exterior, between the structural and topping slabs. This is primarily an aesthetic concern. Efflorescence can be cleaned from the surface of concrete masonry cleaning solutions but will reappear with additional water migration. It may lessen gradually over time as the amount of water-soluble mineral salts within the concrete is reduced. The corrosion from the railing above, however, can lead to premature failure of the systems, and, indeed, a spall appears to have formed at one corner of the concrete supporting the railing. Refer to the recommendation above regarding the railing. Concrete spalls can be removed and patched.

### Below-grade Waterproofing

We also observed damage to the below-grade waterproofing termination in one location at the base of the podium. This damage appears to be related to settlement of the adjacent soil, which can apply pressure on

## Case 1:17-cv-00584-RP Document 72-6 Filed 07/25/17 Page 17 of 43



Mr. Mark Rogers 2013 Travis Oak Creek Developer Inc. November 17, 2016 Page 10

the membrane and cause disengagement from the substrate. WJE recommends excavation of a small area of soil adjacent to the damaged below-grade waterproofing to allow for repair of the existing membrane. A new termination bar should be installed at the top edge of the membrane to protect against further movement of the membrane due to soil settlement. The top of the waterproofing should be also protected from UV.

### Roof Level Conditions

At the roof level, we observed several conduit hoods with spray polyurethane foam (SPF) used to provide an air seal around the conduit. Because SPF is not UV stable, it will deteriorate quickly, resulting in discontinuity in the air and moisture barrier. This could potentially lead to condensation or water infiltration to the building interior. We recommend cutting back the exposed SPF and covering the opening with a metal panel notched around the conduit and then sealed at the perimeter and conduit interfaces.

In a couple of locations, leaking downspout connections resulted in staining of the stucco finish. These connections can be corrected with scalant between sheet metal sections, and discolored stucco can be cleaned as noted above.

One sizeable area of ponding water on the roof was noted on the east side of Building C. We understand from Weis's response letter that the roofing manufacturer has provided a warranty. While many roofing warranties exclude ponding, this one does not. Therefore, even though the ponding can lead to premature deterioration of the roof membrane, we expect the warranty to cover this issue for the expected life of the roof system.

One roof door threshold was observed to be less than the standard 8-inch minimum height above the finished roof surface. The 8-inch minimum height is intended to protect against water buildup during heavy rains. At the low threshold, WJE recommends monitoring for water infiltration during heavy rain events and evaluation by the roof manufacturer for potential repair strategies to divert water away from the door.

#### Closing

This assessment was based on limited visual observations of readily-accessible portions of the building exterior. Our findings and recommendations are based on observations of these representative conditions at the referenced facility at the time of our assessment. Other conditions may exist, or develop over time, which were not found during our investigation. WJE reserves the right to modify our findings should additional information become available. Our recommendations and/or opinions are presented for consideration by 2013 Travis Oak Creek, LP and do not represent a design or specification for repairs.

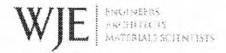
Sincerely,

WISS, JANNEY, ELSTNER ASSOCIATES, INC.

Amy D Gelsone, AIA, CIT, LEED AP

Amy D Gelsone

Senior Associate



# **Figures**

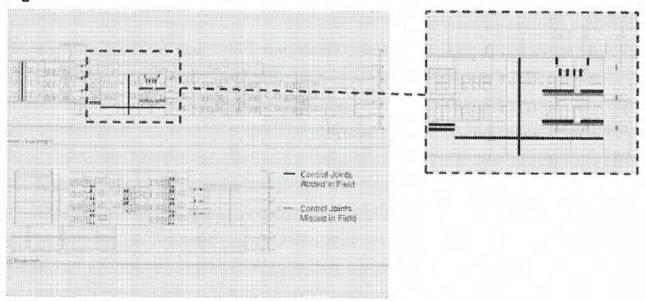


Figure 1. Revised control joint layout per BCS, with construction alterations on Wilson St. marked up by WJE.

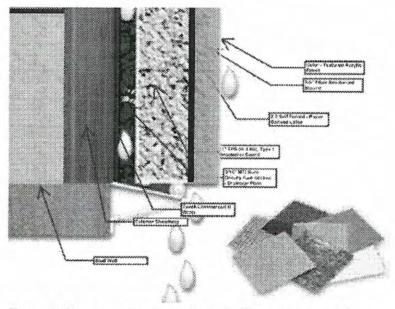


Figure 2. Diagram submitted by Weis for VE proposal to replace EIFS system with Parex stucco system.





Figure 3. Courtyard overview.

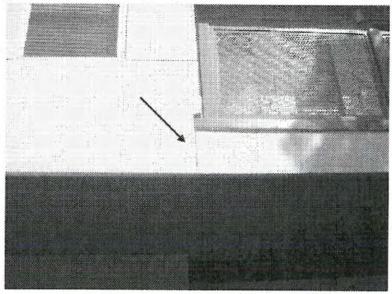


Figure 4. Cracking at balcony on Building D despite adjacency to control joint.



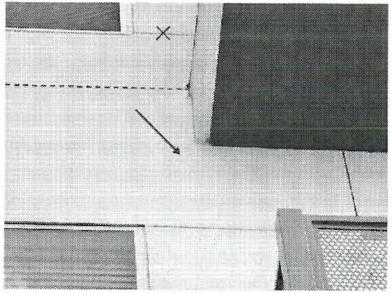


Figure 5. Cracking at balcony on Building A with horizontal control joint not at location indicated by revised layout.

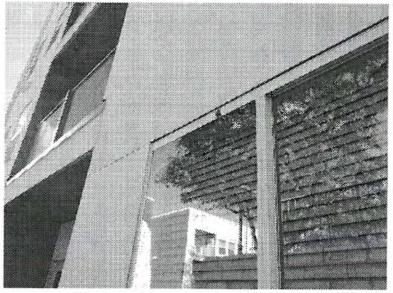
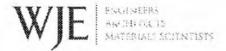


Figure 6. Lack of weep screed at window head. However, head flashing is present and a gap between the flashing and stucco casing bead above will allow for drainage.



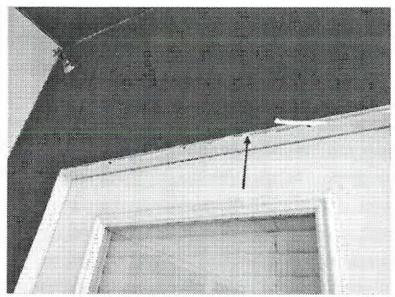


Figure 7. Lack of weep screed at balcony door head, as well as apparent damage to head flashing.



Figure 8. Weep screed at base of wall not engaging stucco system.

Additional non-perforated termination accessory above weep screed.



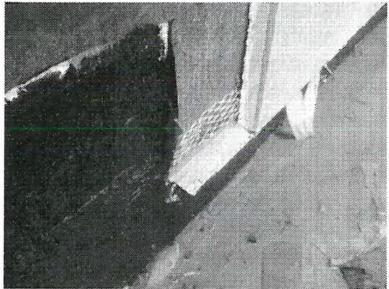


Figure 9. Casing bead flange not embedded in plaster.

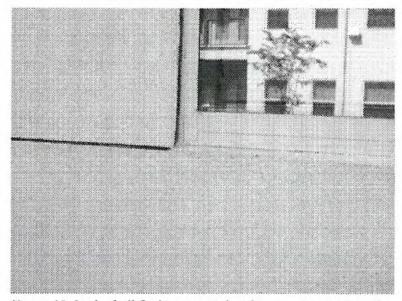
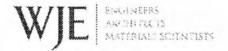


Figure 10. Lack of sill flashing or window framing covering top of stucco assembly.



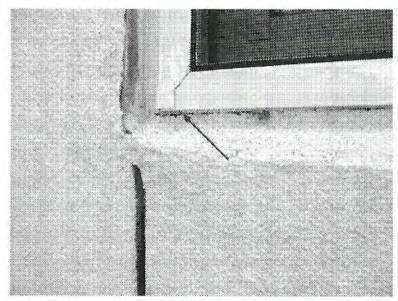


Figure 11. Separation between stucco and window frame; note lack of stucco termination accessory.

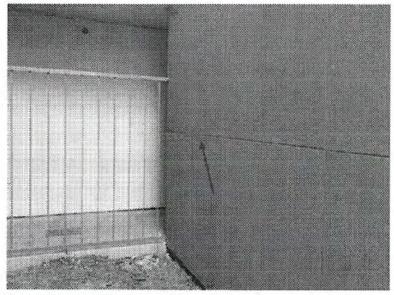
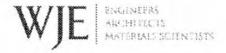


Figure 12. Texture variation apparent at stucco repair on Building B.



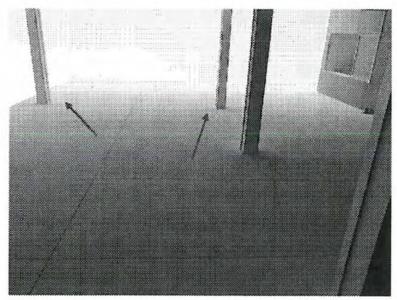


Figure 13. Apparent repairs at beam penetrations on Building C.

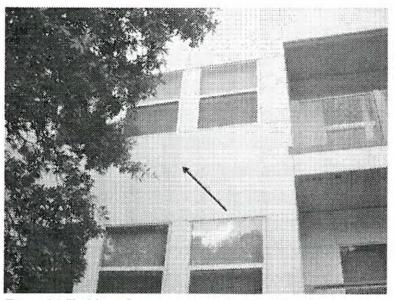


Figure 14. Visible sealant repair at crack on Building C.



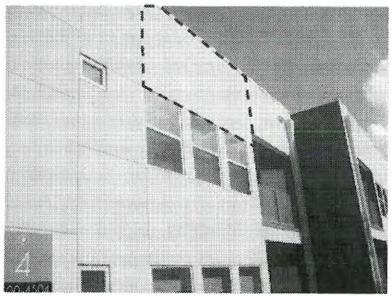


Figure 15. Finish texture at this panel on Building D visibly different from surroundings, though not readily visible from this photo.



Figure 16. Slight overall texture variation on Building B.

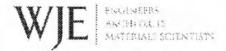




Figure 17. Slight overall texture variation on Building A.

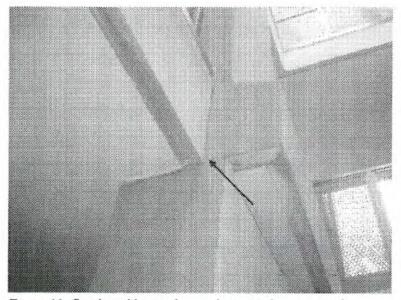
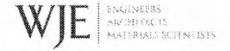


Figure 18. Crack visible at column adjacent to breezeway where deflection control joint has been filled with stucco.



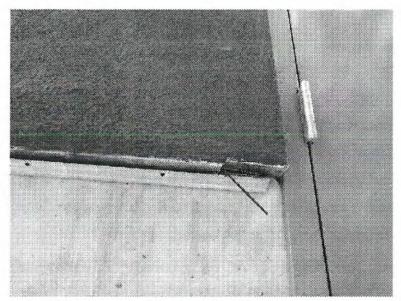


Figure 19. Separation in base trim above weep screed at south end of Building A.

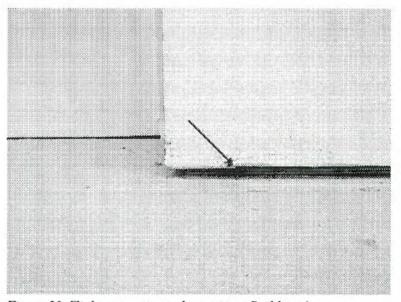


Figure 20. Slight separation in base trim at Building A.



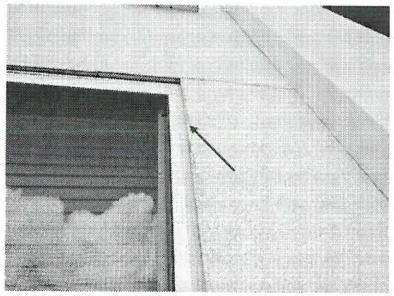


Figure 21. Separation of stucco at jamb trim.

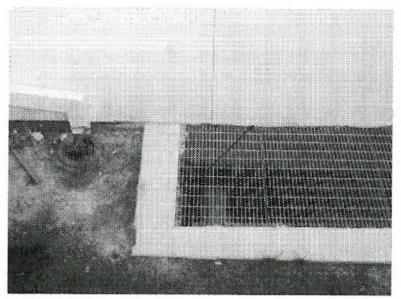
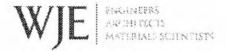


Figure 22. Uneven termination of stucco at wall base above garage vent on east side of Building C.



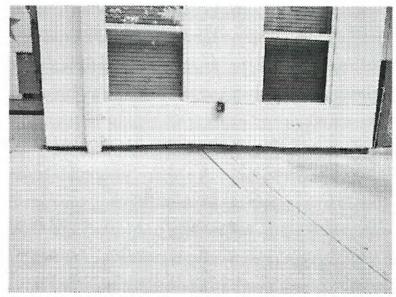


Figure 23. Uneven termination of stucco at wall base above garage vent on east side of Building A.

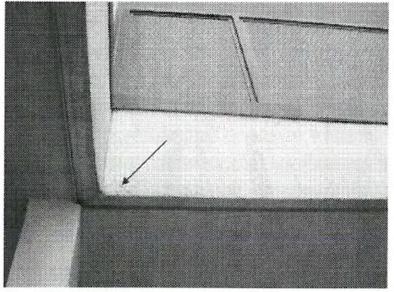
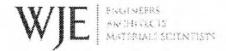


Figure 24. One uncontrolled crack and staining visible at breezeway on Building C.



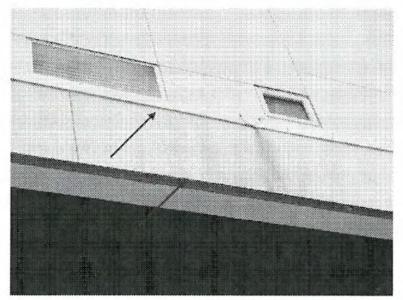


Figure 25. Crack above splice in stucco accessory.

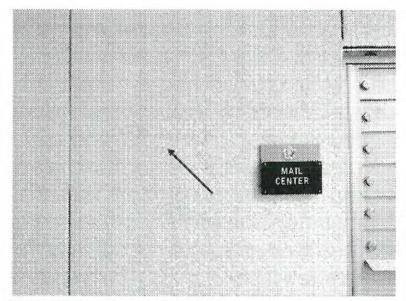
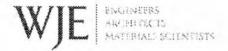


Figure 26. Hairline crack near Mail Center signage.



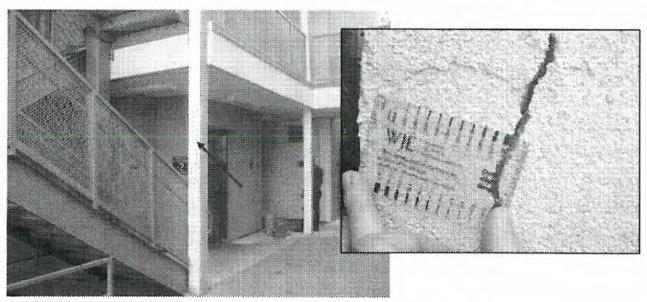


Figure 27. Cracking on all sides for much of height of column at Building C.

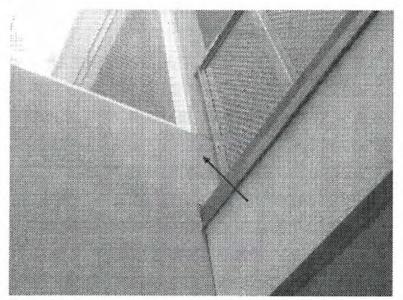
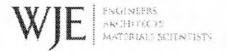


Figure 28. Small crack at base of window near breezeway; note lack of vertical control joint.



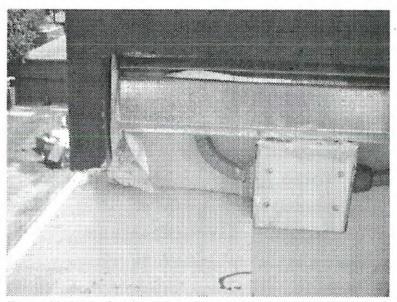


Figure 29. Lack of sealing of weather barrier at wall base on roof of Building A.

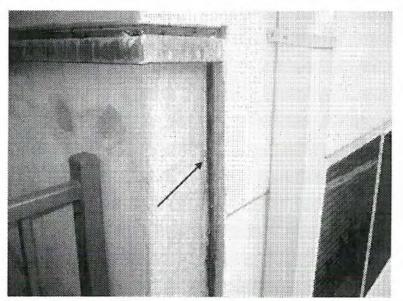
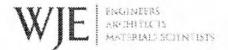


Figure 30. Exposed Tyvek tape unsealed at exposed concrete on Building C.



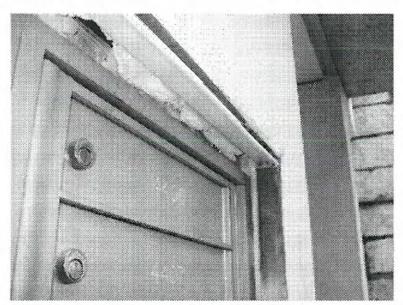


Figure 31. Lack of weather barrier tie-in at sheathing above mailboxes at Building C.

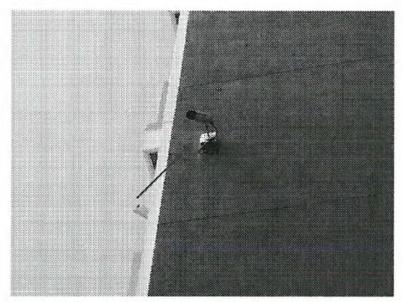
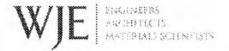


Figure 32. Damage visible at security camera on Building A.



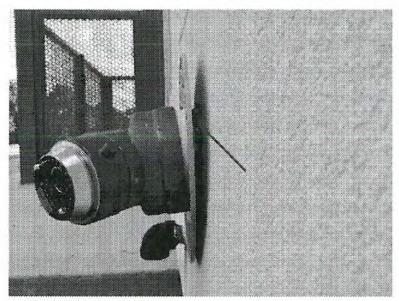


Figure 33. Fire hose spigot penetration not sealed at face of stucco on Building A.

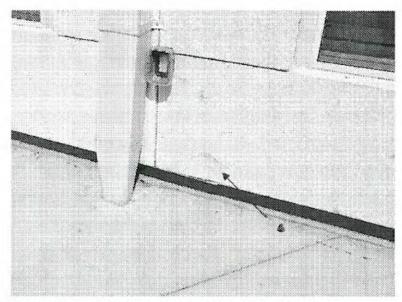
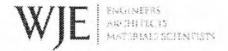


Figure 34. Mechanical damage to stucco on Building A.



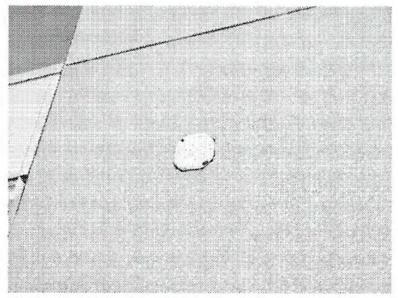


Figure 35. Abandoned electrical junction box with unsealed cover on Building A.

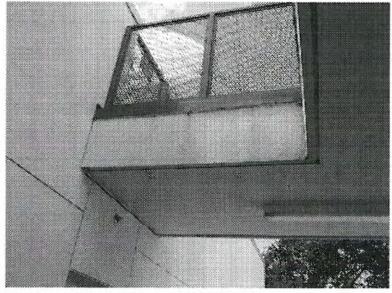
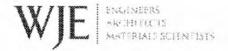


Figure 36. Typical staining at breezeway fascia due to moisture runoff.



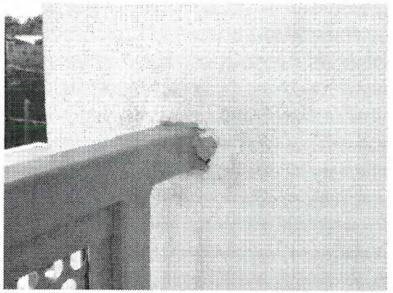


Figure 37. Corrosion of railing behind stucco resulting in staining at balcony on Building D. Sealant not provided around penetration through stucco.

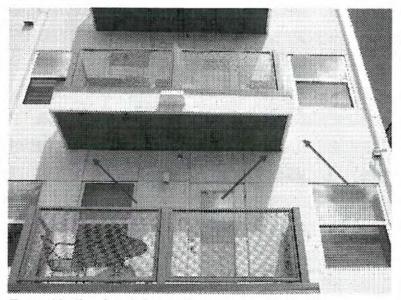
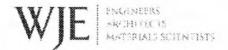


Figure 38. Abandoned electrical junction box (blue) and undiagnosed staining (red) below balcony on Building A.



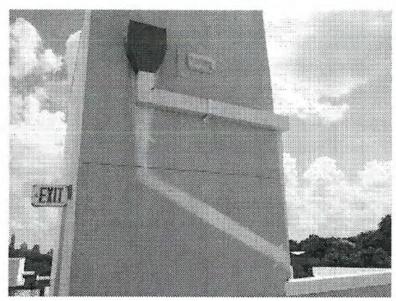


Figure 39. Relocated downspout reveals lack of coating and abandoned fastener penetrations in stucco.

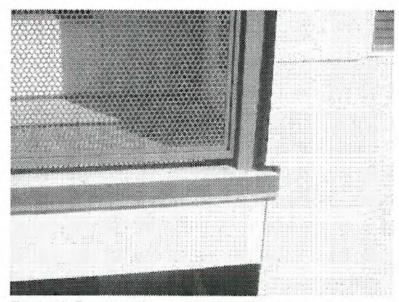


Figure 40. Corrosion of presumably uncoated portions of railing mesh noted in several locations.



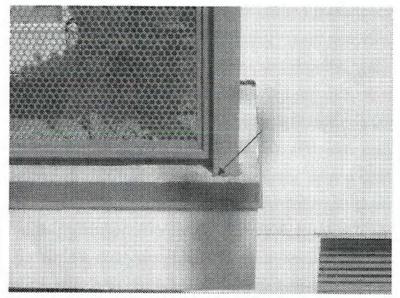


Figure 41. Spalling of concrete at balcony where railing does not appear to be fully coated.

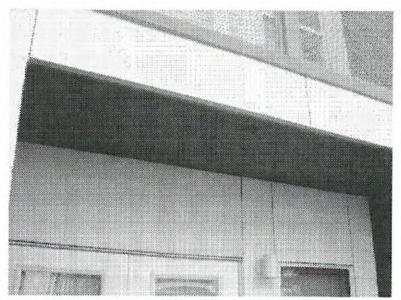
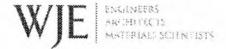


Figure 42. Separation at soffit board joint on Building 4.



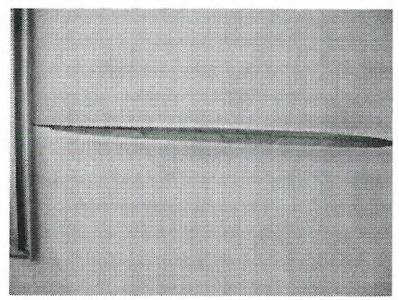


Figure 43. Separation at soffit board joint.

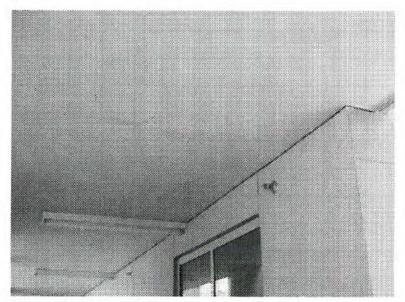
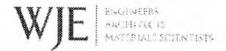


Figure 44. Soffit board joint showing apparent water damage.



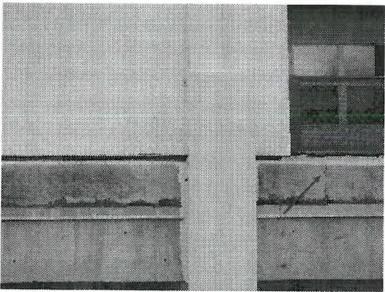


Figure 45. Crack between Buildings A and B at west elevation; note lack of building expansion joint in this location.

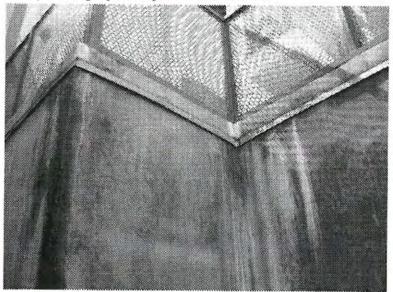


Figure 46. Efflorescence visible with active wetting at split-slab condition of podium.



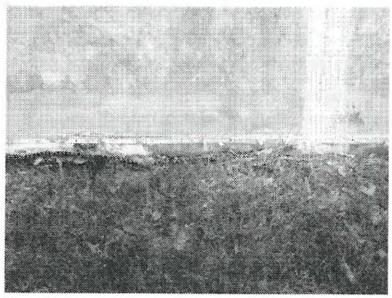


Figure 47. Damage to below-grade waterproofing termination visible at base of podium and lack of protection of top of waterproofing.

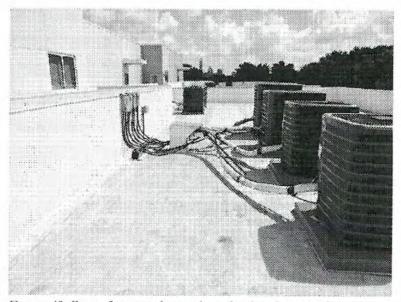


Figure 48. Spray foam used to seal conduit hoods on roof.

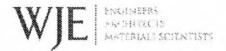




Figure 49. Staining resulting from leak in downspout connection.

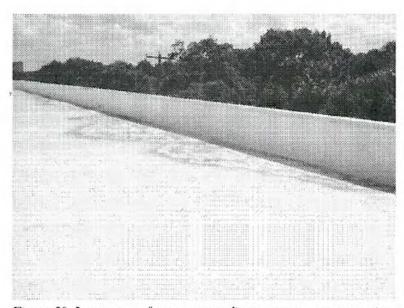


Figure 50. Large area of apparent ponding water on eastern portion of roof over Building  ${\it C.}$ 



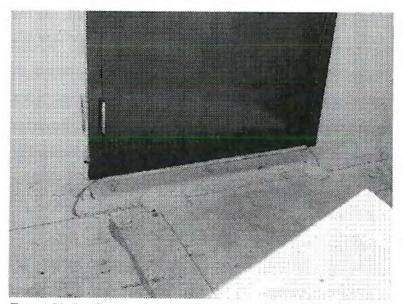


Figure 51. Roof access door threshold lower than industry standard 8-inch minimum.